REVISED VERSION

(51) International Patent Classification[7]: **G06F 17/60**

(21) International Application Number: PCT/US00/02554

(22) International Filing Date: 1 February 2000 (01.02.2000)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/118,250   2 February 1999 (02.02.1999)   US

(71) Applicant: **WORLDWIDETESTING.COM** [US/US]; Suite 1550, 7000 Central Parkway ., Atlanta, GA 30328 (US).

(72) Inventors: **DAY, Danny, Marshal**; 4523 Runnemede Road, Atlanta, GA 30327 (US). **ADAMS, John, Reynolds**; 811 Brandon Park Place, N.W., Atlanta, GA 30318 (US).

(74) Agents: **KING, W., Wayt** et al.; 191 Peachtree Street, Atlanta, GA 30303 (US).

(81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Published:
— with declaration under Article 17(2)(a); without abstract; title not checked by the International Searching Authority

(48) Date of publication of this revised version: 25 July 2002

(15) Information about Correction:
see PCT Gazette No. 30/2002 of 25 July 2002, Section II

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD AND SYSTEM FOR VERIFYING GOODS TO FACILITATE COMMERCIAL TRANSACTIONS

(57) Abstract:

o

PATENT COOPERATION TREATY

PCT

DECLARATION OF NON-ESTABLISHMENT OF INTERNATIONAL SEARCH REPORT

(PCT Article 17(2)(a), Rules 13ter.1(c) and Rule 39)

Applicant's or agent's file reference 07090.105001	IMPORTANT DECLARATION	Date of mailing(day/month/year) 25/01/2002
International application No. PCT/US 00/ 02554	International filing date(day/month/year) 01/02/2000	(Earliest) Priority date(day/month/year) 02/02/1999
International Patent Classification (IPC) or both national classification and IPC G06F17/60		
Applicant WORLDWIDETESTING. COM		

This International Searching Authority hereby declares, according to Article 17(2)(a), that **no international search report will be established** on the international application for the reasons indicated below

1. [X] The subject matter of the international application relates to:

   a. [ ] scientific theories.

   b. [ ] mathematical theories

   c. [ ] plant varieties.

   d. [ ] animal varieties.

   e. [ ] essentially biological processes for the production of plants and animals, other than microbiological processes and the products of such processes.

   f. [X] schemes, rules or methods of doing business.

   g. [ ] schemes, rules or methods of performing purely mental acts.

   h. [ ] schemes, rules or methods of playing games.

   i. [ ] methods for treatment of the human body by surgery or therapy.

   j. [ ] methods for treatment of the animal body by surgery or therapy.

   k. [ ] diagnostic methods practised on the human or animal body.

   l. [ ] mere presentations of information.

   m. [ ] computer programs for which this International Searching Authority is not equipped to search prior art.

2. [ ] The failure of the following parts of the international application to comply with prescribed requirements prevents a meaningful search from being carried out:

   [ ] the description   [ ] the claims   [ ] the drawings

3. [ ] The failure of the nucleotide and/or amino acid sequence listing to comply with the standard provided for in Annex C of the Administrative Instructions prevents a meaningful search from being carried out:

   [ ] the written form has not been furnished or does not comply with the standard.

   [ ] the computer readable form has not been furnished or does not comply with the standard.

4. Further comments:

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer

Form PCT/ISA/203 (July 1998)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 203

The claims relate to subject matter excluded from patentability under
Art. 52(2) and (3) EPC. Given that the claims are formulated in terms of
such subject matter or merely specify commonplace features relating to
its technological implementation, the search examiner could not establish
any technical problem which might potentially have required an inventive
step to overcome. Hence it was not possible to carry out a meaningful
search into the state of the art (Rule 45 EPC). See also Guidelines Part
B Chapter VIII, 1-6.

The applicant's attention is drawn to the fact that claims relating to
inventions in respect of which no international search report has been
established need not be the subject of an international preliminary
examination (Rule 66.1(e) PCT). The applicant is advised that the EPO
policy when acting as an International Preliminary Examining Authority is
normally not to carry out a preliminary examination on matter which has
not been searched. This is the case irrespective of whether or not the
claims are amended following receipt of the search report or during any
Chapter II procedure. If the application proceeds into the regional phase
before the EPO, the applicant is reminded that a search may be carried
out during examination before the EPO (see EPO Guideline C-VI, 8.5),
should the problems which led to the Article 17(2) declaration be
overcome.

To provide transparency to traders in industrial goods, analysis of the goods by trusted analysis laboratories and verification of shipment quantities (via surveying) by inspection companies are often employed. In the chemicals industry, for example, a prospective buyer

5 will typically ask that lot acceptance testing be performed by an independent test lab on a sample from the chemical lot of interest and that the quantity of the lot be determined before the buyer will agree to accept the goods and consummate the transaction. The test lab typically performs a requested set of tests on the sample and provides a certificate

10 of analysis ("C of A") to the prospective buyer verifying that the chemical composition of the lot meets certain specifications, for example.

The widespread deployment and adoption of electronic networks for conducting business is revolutionizing trade in industrial goods. Private electronic data interchange ('EDI") networks and

15 associated communications protocols emerged in the 1980s to improve efficiencies and communications between trading partners. The rise of open Internet protocol ("IP") networks, the world wide web, and standard web browsers in the 1990s has led to the marginalization of existing off-line distribution channels for many goods and to the emergence of new

20 web-based intermediaries through which trading activity is increasingly conducted.

A web-based trading hub is an online intermediary that connects fragmented buyers and sellers and allows them to conduct business electronically. Web trading hubs eliminate inefficiencies by

25 aggregating offerings from many sellers or by matching buyers and sellers in an exchange or auction. The architecture of a generic web-based trading hub 12 is illustrated in the block diagram of FIG. 1. For buyers

14, trading hubs lower purchasing costs and enable buyers to reach new sellers 16. For sellers 16, trading hubs lower sales costs and allow sellers to reach new buyers 14.

Web trading hubs operate on several different models. Exchanges are two-sided marketplaces where buyers and suppliers negotiate prices, usually with a bid and ask system, and where prices move both up and down. Exchanges work best with easily definable products without complicated attributes, products such as commodities, perishable items like food, or intangibles like electricpower. An example of an exchange-type hub is illustrated at the web site www.PaperExchange.com.

Lead generation hubs are typically seller-driven and derive revenue from ads, commissions on sales, or fees for delivering qualified leads to suppliers. Lead generation hubs provide value by understanding the information needs of their users and by integrating and aggregating content, information and transactions for buyers and sellers. The industry-specific communities offered by the www.VerticalNet.com web site are examples of lead generation hubs.

Catalog aggregators help buyers make buying decisions by aggregating catalogs from multiple vendors of products having relatively static prices. Catalog aggregators also normalize information coming from diverse sources to enable comparisons of similar products and services. Catalog aggregators typically function as virtual distributors but don't take possession of goods themselves. Examples of catalog aggregator hubs include the www.Chemdex.com and the www.PlasticsNet.com web sites.

Auction hubs let multiple buyers bid competitively for products from individual suppliers and are suitable for hard-to-move goods such as used capital equipment and surplus or excess inventory. Prices only move up, but buyers can buy below list prices while sellers sell for more than a liquidator pays. Auctions are becoming a feature of many web-based markets, but some use auctions as their primary market mechanism. An example of an auction hub is the www.TradeOut.com hub for used equipment.

The reintermediation of transactions in industrial materiel onto online trading hubs exacerbates the need for hub participants to verify materiel characteristics efficiently, particularly for certain types of goods. As transaction friction is generally reduced by moving to web-based hubs, verification costs become increasingly significant as a proportion of total transaction costs. To address the need for efficient materiel verification, individual trading hubs have developed in-house verification capabilities as well as relationships with independent analysis laboratories and inspection companies. Unfortunately, the base of analysis laboratories and inspection companies is very fragmented, with individual labs and companies providing niche capabilities. As a result, individual trading hubs operating in particular vertical industry markets are forced to develop a patchwork of relationships with a wide variety of analysis and verification facilities. The inefficiency that results from this patchwork of relationships reduces materiel transaction transparency significantly and is a drag on business-to-business electronic commerce.

There is therefore a need to reduce the transactions costs that participants in web-based marketplaces incur when they have third parties analyze and quantify the industrial materials and other goods that are

traded on such marketplaces and when the results of such tests are communicated to those participants.

SUMMARY OF THE INVENTION

5   The present invention facilitates transactions througha wide variety of web-based marketplaces for trading in goods, including chemicals, electronic parts, and other industrial goods. A web-based central analysis hub is provided through which (1) requests for the analysis of transaction goods by transaction participants are processed

10   and distributed to selected analysis laboratories, and (2) goods analysis results from the analysis labs are collected from the analysis labs and distributed to transaction participants. By providing a single point of contact for transaction participants and analysis laboratories, information transparency is enhanced and the efficiency of web-based marketplaces is

15   improved.

      According to one aspect of the invention, an analysis hub accepts requests for the verification of transaction objects from a web-based marketplace or other requestor via a distributed computer network such as the Internet. For example, a web-based chemicals marketplace

20   might submit a request to the analysis hub through the Internet or another electronic network requesting that particular quantity verification and chemical analyses be performed on a particular lot of chemicals that a buyer is interested in purchasing via the marketplace. The analysis hub then routes analysis and surveying instructions through the network to a

25   selected one of several analysis laboratories equipped to perform the analysis. Once the analysis has been performed, the hub accepts the

analysis results from the lab via the network and routes the results to the requestor or another transaction participant via the network.

The hub can route the analysis results to the transaction participant by serving a web page over the network in response to a web

5   page request received from the transaction participant. The web page may be served from a secure server to preclude public access to the results if desired. Alternatively, the analysis results may be delivered to the requestor via an encrypted or unencrypted electronic mail message containing the results, via a facsimile transmission, or via other known

10   information delivery mechanisms.

In one exemplary embodiment of the invention, the analysis results may be linked by the analysis hub via the electronic network to a graphical object, such as an icon, on a web page of the respective web-based marketplace. The graphical object displayed on the marketplace

15   web page may indicate the status of the analysis results, and the analysis results may be served to a prospective buyer on the marketplace when the buyer selects the graphical object.

The present invention thus advantageously provides web-based marketplaces and analysis laboratories with a single point of

20   contact (a product verification hub) through which analysis requests and analysis results may be routed electronically. Information transparency for marketplace participants is improved, and web marketplace efficiency may therefore be enhanced.

25   BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 is a block diagram illustrating the architecture of a prior art web-based trading hub.

FIG. 2 is a block diagram illustrating a web-based transactions network including a product verification hub for facilitating product transactions among buyers, sellers, and electronic marketplaces in accordance with an exemplary embodiment of the present invention.

5   FIG. 3 is a schematic block diagram illustrating a product verification hub in accordance with an exemplary embodiment of the present invention.

FIG. 4 is a flow diagram indicating the steps in a method for providing verification data associated with a transaction object to a

10   requestor in order to facilitate a transaction in accordance with an exemplary embodiment of the present invention.

FIG. 5 is a flow diagram indicating the steps in a method for providing analysis results associated with transaction goods to a transaction party in accordance with an exemplary embodiment of the

15   present invention.

DETAILED DESCRIPTION OF THE EXEMPLARY EMBODIMENTS

The present invention is directed to providing verification

20   data, such as a goods analysis report and a quantity surveying report, to a requestor, such as a buyer of the goods or a web-based marketplace for trading in the goods. Although the preferred embodiment of the invention will be described with respect to providing an analysis report from an analysis laboratory to a transaction participant via a distributed

25   computer network to facilitate trade in goods, those skilled in the art will recognize that the invention may be utilized in connection with providing analysis results, surveying results, and other verification data associated

with a transaction object in a wide range of transaction environments. The present invention can provide verification information associated with a transaction object through a verification hub over an electronic network in order to facilitate a transaction. According to one aspect of

5   the invention, information transparency is increased and the efficiency of web-based transaction marketplaces is thereby improved.

Turning now to the drawings, in which like numerals indicate like elements throughout the several figures, exemplary embodiments of the invention will now be described in detail. Referring

10 to FIG. 2, a block diagram is presented that illustrates a web-based transactions network 10 including a product analysis hub 20 for facilitating product transactions among buyers 14, sellers 16, and electronic marketplaces 22 or other web-based intermediaries. In the transactions network 10, marketplaces 22 typically include web-based

15 transaction hubs each organized to serve a particular vertical industry market. For example, marketplace 22a might serve the chemicals industry, marketplace 22b might serve the plastics industry, and marketplace 22c might serve the petrochemicals industry. The electronic marketplaces 22 aggregate demand and supply in the particular vertical

20 market served.

Many commodities traders or other buyers 14 request some form of analysis or characterization of the quality, quantity, composition, performance, or other attributes of the goods offered through marketplace 22. The requirement for analysis is particularly important in situations

25 where the identity of the manufacturer or the seller of the goods may not be known by the prospective buyer.

The analysis requirement can be fulfilled by verifiers such as analysis labs 24, which typically provide specialized analysis services according to the industry served or the goods handled. For example, analysis lab 24a might provide materials spectrographic analysis, analysis lab 24b might provide plastics physical analysis, and analysis lab 24c might provide sulfur content analysis or other verification results for petrochemical products. The verifiers may also comprise other verifier nodes and analysis entities.

Many analysis labs use the Laboratory Information Management System ("LIMS") for automating materials analysis and the communication of analysis data. According to one exemplary embodiment of the present invention, the analysis hub 20 is adapted to interface with LIMS-enabled analysis laboratories to provide access to laboratory procedures and workflow automated by a LIMS system.

Web-based analysis hub 20, according to one exemplary embodiment of the invention, aggregates the demand by multiple marketplaces 22 for the analysis services required by marketplace participants such as marketplaces 22, individual buyers 14, and individual sellers 16. Analysis hub 20 also aggregates the supply of analysis services resources, such as analysis labs 24, that is available to marketplaces 22 for the verification of the goods. The analysis hub provides a single point of contact via an electronic network for marketplaces and individual buyers and sellers, on the one hand, and for multiple specialized analysis labs, on the other hand. The analysis hub reduces analysis search costs for the transaction participants and the analysis labs and efficiently improves transaction information transparency for traders using electronic marketplaces 22.

Communications between marketplace participants 14, 16, 22, analysis laboratories 24, and the web-based analysis hub 20 within the electronic transactions network 10 can take many forms. For example, electronic mail ("email") messages may be sent between transactions

5   network elements. Email messages may be encrypted if necessary to secure the message. Alternatively, data may be delivered via a webpage served in response to a hypertext transfer protocol ("HTTP") request. The web page data may be secured by using a secure server employing the HTTP Secure ("HTTPS") protocol or other security measures known

10 in the art. In addition, other information delivery mechanisms as are know in the art, such as facsimile transmission and regular mail delivery, may be employed without departing from the invention.

Communications between network elements may be accomplished using the extensible mark-up language ("XML") to tag

15 product data and analysis data. In addition, other communications protocols and data conventions as are known in the art for use in electronic commerce may be used without departing from the present invention.

Referring now to FIGS. 2 and 3, a schematic block diagram

20 illustrating a product verification hub in accordance with an exemplary embodiment of the present invention is illustrated in FIG. 3. The verification hub 20 includes a requestor interface 28 that is adapted to accept product verification requests, such as requests for analysis, from requestors via the electronic network 26, such as the Internet or a virtual

25 private network. Requestors may be buyers 14, sellers 16, or the marketplaces 22 themselves. For example, a marketplace 22 might request that an analysis be performed by providing, through the requestor

interface 28 over the Internet 26, a goods identifier, product identifier, commodities lot identifier or other object identifier identifying the goods, commodity lot, or other transaction object for which analysis is to be performed along with instructions indicating the analysis to be performed.

5   The product verification hub 20 further includes a router/server 30 that routes the analysis request to an appropriate analysis laboratory 24 through verifier interface 32 via the electronic network. For example, router/server 30 can route the analysis request to an appropriate analysis laboratory based on the product identifier and the analysis instructions. After the requested analysis has been performed,

10   the analysis results are accepted by the hub 20 through the verifier interface 32 over the electronic network 26. In one exemplary embodiment, the hub 20 is adapted to interface through the analysis lab's LIMS to automate analysis data transfer. The router/server 30 is adapted

15   to route the analysis results to the requestor or to another transaction participant (such as a buyer, seller, or marketplace) via the requestor interface over the electronic network in order to provide transaction information transparency and facilitate the transaction.

The router/server 30 may also be adapted to serve a web

20   page that includes the analysis results in response to a webpage request from the requestor or another transaction party. The router/server may include a secure server, such as an HTTPS server, so that the analysis results are available only to the intended party and cannot be accessed by other parties. The router/server 30 may also include an email server

25   adapted to deliver the analysis results to the requestor or another transaction party via encrypted or unencrypted electronic mail over the electronic network 26. Moreover, the router/server may be adapted to

deliver the analysis results via facsimile transmission. In one exemplary embodiment, the hub 20 is adapted to accept the analysis request and the analysis results using XML.

In one exemplary embodiment, the verification hub 20

5   includes a memory 34 for storing the analysis results. A transaction participant may retrieve the analysis results later via the memory 34 from the hub 20. In another exemplary embodiment, the hub 20 maintains analysis status information indicating the status of the analysis results (for example: analysis ordered, in-process, completed, passed, failed) and

10 provides an analysis results status indicator to a transaction participant upon request.

Referring now to FIGS. 2, 3 and 4, a flow diagram indicating the steps in an exemplary method for providing verification data associated with a transaction object to a requestor in order to facilitate a

15 transaction is illustrated in FIG. 4. The method begins at step 400. At step 402, the verification hub 20 accepts a database request from a requestor, such as a transaction participant. The database request may inquire about the availability of analysis data associated with a particular chemical lot or other transaction object, for example. At step 404, the hub

20 20 provides a database response to the database request associated with the transaction object to the requestor through the requestor interface 28.

The method proceeds to step 406, at which step the verification hub 20 accepts an analysis request or other verification request from a buyer 14, seller 16, marketplace 22, or other requestor

25 over the Internet 26 through the requestor interface 28. The analysis request includes an object identifier that identifies the transaction object. At step 408, the hub 20 also accepts posting instructions from the

requestor indicating whether the analysis results should be made publicly available. At step 410, the router/server 30 routes analysis instructions or other verification instructions associated with the analysis request to an appropriate analysis lab 24 or other verifier through the Internet.

At step 412, the verification hub 20 accepts the results of the analysis or other verification process from the analysis lab 24 through the verifier interface 32. The analysis results are preferably suitable for facilitating a transaction in the goods by providing information transparency to all of the transaction participants. At step 414, the verification hub stores the analysis results in memory storage 34 for later retrieval. At step 416, the hub 20 receives a password from a requestor of the analysis results, according to one exemplary embodiment of the invention. If the password is an acceptable password, then the method proceeds to step 418 and the router/server 30 serves a webpage including the analysis results to the requestor. Alternatively, the analysis results may be provided via an electronic mail message. An analysis results status indicator, rather than the analysis results themselves, may be provided to the requestor. The requestor may be a buyer 14, a seller 16, and/or a marketplace 22.

According to step 420, the method according to one exemplary embodiment of the invention includes the step of offering an insurance product that is based on the verification results to a transaction participant via the network 26. Moreover, an escrow product, a letter of credit product, or other financial products as are known to be used in commercial transactions may be offered according to other embodiments of the invention. The method then terminates at step 422.

14

In summary, an exemplary embodiment can support the delivery of analysis results or other verification data to buyers, sellers, and other transaction participants in a web-based marketplace in order to increase information transparency and thereby facilitate transactions. The

5   verification hub 20 can route analysis requests and analysis results to and from transaction participants (buyers 14, sellers 16, and marketplaces 22) and analysis laboratories 24 via an electronic communications network.

Referring now to FIGS. 2, 3 and 5, a flow diagram indicating the steps in an exemplary method for providing analysis data associated

10   with transaction goods to a transaction party is illustrated in FIG 5. The method begins at step 500. At step 502, verification hub 20 accepts surveying instructions through requestor interface 28 from the transaction party to indicate the surveying to be performed on the goods. At step 504, the hub 20 accepts sampling instructions from the transaction party

15   indicating the subset of the goods for which the analysis is to be performed.

The method then proceeds to step 506, at which step the hub 20 selects an appropriate analysis lab and sends an electronic mail message through the verifier interface 32 to the analysis lab 24 to indicate

20   that an analysis request has been received. At step 508, the hub 20 receives a responsive acknowledgement from the analysis lab 24 through the verifier interface 32. The hub then sends an electronic message that includes the analysis request via the computer network 26 to the analysis lab 24 at step 510. At step 512, the hub receives a confirmation from the

25   analysis lab 24 via the verifier interface 32 indicating receipt and acceptance of the analysis request by the analysis laboratory.

After the analysis lab 20 performs the analysis, the hub 20 accepts the analysis results from the analysis lab via the computer network 26. The analysis results are stored in a memory 34 for later retrieval according to one exemplary embodiment of the invention. At step 516, the stored analysis results are linked via the computer network 26 to a graphical object displayed on the marketplace web site. The graphical object preferably indicates the status of the analysis results. For example, the graphical object may be either of two icons that indicate whether analysis results are available.

The method then proceeds to step 518, at which step the server/router 30 serves a web page that includes the analysis results via the communications network 26 in response to a web page request received from one of the transaction parties via the requestor interface 28. Alternatively, the router/server 30 may send a secure or unsecure electronic mail message that includes the analysis results to the transaction party. In one exemplary embodiment, the marketplace 22 or another transaction party may periodically poll the hub 20 with an electronic data request at step 520, and the hub may provide an update to the analysis results through the requestor interface at step 522. The method then terminates at step 524.

The method according to the exemplary embodiment illustrated in the flow diagram of FIG. 5 aggregates the demand from multiple marketplaces 22 for the analysis services required by buyers 14, sellers 16, and marketplaces 22. At the same time, the supply of analysis resources available from multiple analysis laboratories 24 is aggregated. This allows transaction participants and analysis labs to have a single point of contact (the analysis hub 20), thus reducing search costs for all

parties and improving the efficiency of marketplaces 22. It will be apparent to those skilled in the art that surveying and other verification services other than analysis can be aggregated without departing from the present invention.

5   From the foregoing, it will be appreciated that the exemplary embodiments of the present invention overcome the limitations of the prior art described herein. From the description of the exemplary embodiments, equivalents of the elements shown therein will suggest themselves to those skilled in the art, and ways of constructing other

10   embodiments of the present invention will suggest themselves to practitioners of the art. Therefore, the scope of the present invention is to be limited only by the claims below.

CLAIMS

WHAT IS CLAIMED IS:

5

     1.   In association with a computer network for conducting a transaction, a method for providing verification data associated with a transaction object to a requestor in order to facilitate the transaction, the method comprising the steps of:

10   accepting a verification request from a requestor via the computer network, the verification request including an object identifier that identifies the transaction object;

    providing verification instructions including the object identifier to a verifier via the computer network in response to the verification request; and

15

    accepting verification results from the verifier via the computer network based on the verification instructions, whereby the verification results are suitable for use in facilitating the transaction.

20   2.   The method according to Claim 1 further comprising the step of providing the verification results to the requestor via the computer network.

    3.   The method according to Claim 2 wherein the step of

25   providing the verification results comprises sending an electronic mail message to the requestor via the computer network.

4.   The method according to Claim 3 further comprising the step of encrypting the verification results before sending the electronic mail message to the requestor.

5   5.   The method according to Claim 2 wherein the step of providing the verification results comprises serving a web page to the requestor.

6.   The method according to Claim 5 wherein the step of

10   serving the web page comprises the steps of:

receiving a password from the requestor; and

serving the web page to the requestor from a secure server in response to receiving the password.

15   7.   The method according to Claim 2 further comprising the step of providing the verification results to a transaction participant via the computer network.

8.   The method according to Claim 1 further comprising

20   the step of storing the verification results in a memory for later retrieval.

9.   The method according to Claim 1 further comprising the step of offering an insurance product associated with the verification results to the transaction participant via the computer network.

25

10.   The method according to Claim 1 further comprising the step of offering an escrow product associated with the verification results to the transaction participant via the computer network.

5   11.   The method according to Claim 1 further comprising the step of providing a letter of credit product associated with the verification results to the transaction participant via the computer network.

10   12.   The method according to Claim 1 further comprising the steps of:

before accepting the verification request, accepting a database request from the requestor via the computer network; and

in response to the database request, providing a database
15   response associated with the transaction object to the requestor via the computer network.

13.   The method according to Claim 1 further comprising the step of accepting from the requestor a posting instruction indicating
20   whether verification results should be made available to the public.

14.   In association with a computer network for trading in a plurality of commodity lots, a method for providing analysis data associated with at least one of the commodity lots to a commodities trader in order to facilitate commodities trading, the method comprising the

5   steps of:

accepting, from a trader via the computer network, an analysis request indicating analyses requested to be performed on one of the commodity lots, the analysis request including a commodity lot identifier for identifying the commodity lot;

10   providing analysis instructions including the commodity lot identifier to an analysis facility via the computer network in response to the analysis request;

accepting analysis data from the analysis facility via the computer network based on the analysis instructions; and

15   providing the analysis data to the trader via the computer network to facilitate trading in the commodity lot.

15. In association with a computer network for transacting in a plurality of goods, a method for providing, to a transaction party, analysis results including physical properties of at least one of the goods in order to facilitate a transaction, the method comprising the steps of:

5   accepting an analysis request from the transaction party via the computer network, the analysis request including:

a goods identifier identifying the goods for which a physical properties analysis is requested; and

analysis instructions indicating the nature of the

10   analysis that the transaction party desires to have performed on the goods;

providing the analysis request to an analysis entity via the computer network based on the analysis request so that the analysis entity can perform the desired analysis; and

accepting analysis results from the analysis entity via

15   the computer network in response to the analysis request in order to facilitate transactions in the goods.

16. The method according to Claim 15 further comprising the step of sending the analysis results to the transaction party in an

20   electronic mail message via the computer network.

17. The method according to Claim 15 further comprising the step of serving a web page including the analysis results via the computer network in response to a web page request from the transaction

25   party.

18.   The method according to Claim 15 further comprising the step of linking to a web page that includes the analysis results via the computer network.

19.   The method according to Claim 15 further comprising the step of linking the analysis results via the computer network to a graphical object that indicates the status of the analysis results.

20.   The method according to Claim 15 further comprising the steps of:

receiving a periodic electronic data request from the transaction party via the computer network; and

in response to the periodic electronic data request, providing an analysis results update via the computer network.

21.   The method according to Claim 15 wherein the step of accepting the analysis request comprises accepting surveying instructions indicating surveying to be performed on the goods.

22.   The method according to Claim 15 wherein the step of accepting the analysis request comprises accepting sampling instructions indicating a subset of the goods for which the analysis is to be performed.

23.   The method according to Claim 15 wherein the step of providing the analysis request comprises the steps of:

sending an electronic mail message via the computer network to the analysis entity indicating that an analysis request has been accepted from the transaction party;

receiving an acknowledgement from the analysis entity via the computer network in response to the electronic mail message;

sending an electronic message including the analysis request to the analysis entity via the computer network in response to the acknowledgement from the analysis entity; and

receiving a confirmation from the analysis entity via the computer network indicating receipt and acceptance of the analysis request by the analysis entity.

24.   The method according to Claim 15 wherein the step of accepting the analysis results comprises the step of accepting the analysis results from a Laboratory Information Management Software (LIMS) system.

25.   In association with an electronic network for transacting in a plurality of products, the network including a plurality of verifier nodes that perform product verification, a product verification hub comprising:

5   a requestor interface adapted to:

accept a product verification request from a requestor via the electronic network, the product verification request including:

a product identifier identifying the

10   product for which verification is requested; and

verification instructions indicating the nature of the verification requested to be performed for the product;

a router adapted to route the product verification request to a selected one of the verifier nodes via the electronic network;

15   and

a verifier interface adapted to accept verification results, indicating the results of the verification performed, from the selected verifier node via the electronic network in response to the product verification request;

20   wherein the router is further adapted to route the verification results to a transaction party via the electronic network in order to facilitate a transaction in the product.

26.   The product verification hub according to Claim 25

25   further including a web server adapted to serve a web page including the verification results via the electronic network in response to a webpage request from the transaction party.

27. The product verification hub according to Claim 26 wherein the web server comprises a secure server.

5

28. The product verification hub according to Claim 26 wherein the web server comprises a hypertext transfer protocol secure (HTTPS) server.

29. The product verification hub according to Claim 25

10 further including a mail server adapted to deliver the verification results to the transaction party via the electronic network.

30. The product verification hub according to Claim 29 wherein the mail server is further adapted to encrypt the verification

15 results.

31. The product verification hub according to Claim 25 further including a fax server adapted to deliver the verification results to the transaction party via facsimile transmission.

20

32. The product verification hub according to Claim 25 wherein the requestor interface is adapted to accept the verification request via the electronic network using extensible markup language (XML).

25

26

33.   The product verification hub according to Claim 25 wherein the verifier interface is adapted to accept the verification results via the electronic network using XML.

5   34.   The product verification hub according to Claim 25 further comprising a memory adapted to store the verification results for later retrieval.

35.   The product verification hub according to Claim 25
10   wherein the router is further adapted to send the verification results to the transaction party via the electronic network.

36.   The product verification hub according to Claim 25 wherein the router is further adapted to send to the transaction party a
15   verification results status indicator indicating the status of the verification results.

37. In association with an electronic network including at least one web-based intermediary for facilitating transactions between a plurality of buyers and sellers of products, a product analysis hub comprising:

5   a requestor interface adapted to accept an analysis request from one of a buyer, a seller, or the intermediary via the electronic network;

a router adapted to route the analysis request to a selected one of a plurality of product analysis facilities via the electronic

10 network; and

an analysis facilities interface adapted to accept analysis results from the selected product analysis facility via the electronic network in response to the analysis request.

15   38. The product analysis hub according to Claim 37 further comprising an analysis results server adapted to provide the analysis results to one of the buyer, the seller, or the intermediary via the electronic network.

20   39. The product analysis hub according to Claim 38 wherein the analysis results server is adapted to provide the analysis results securely.

40. The product analysis hub according to Claim 38

25 wherein the analysis results server is adapted to provide the intermediary with an analysis results status indicator indicating the status of the analysis results.

41.   The product analysis hub according to Claim 37 further comprising a memory for storing the analysis results for later retrieval.

5

42.   The product analysis hub according to Claim 37 wherein the analysis facilities interface is further adapted to communicate with a Laboratory Information Management Software (LIMS) system.
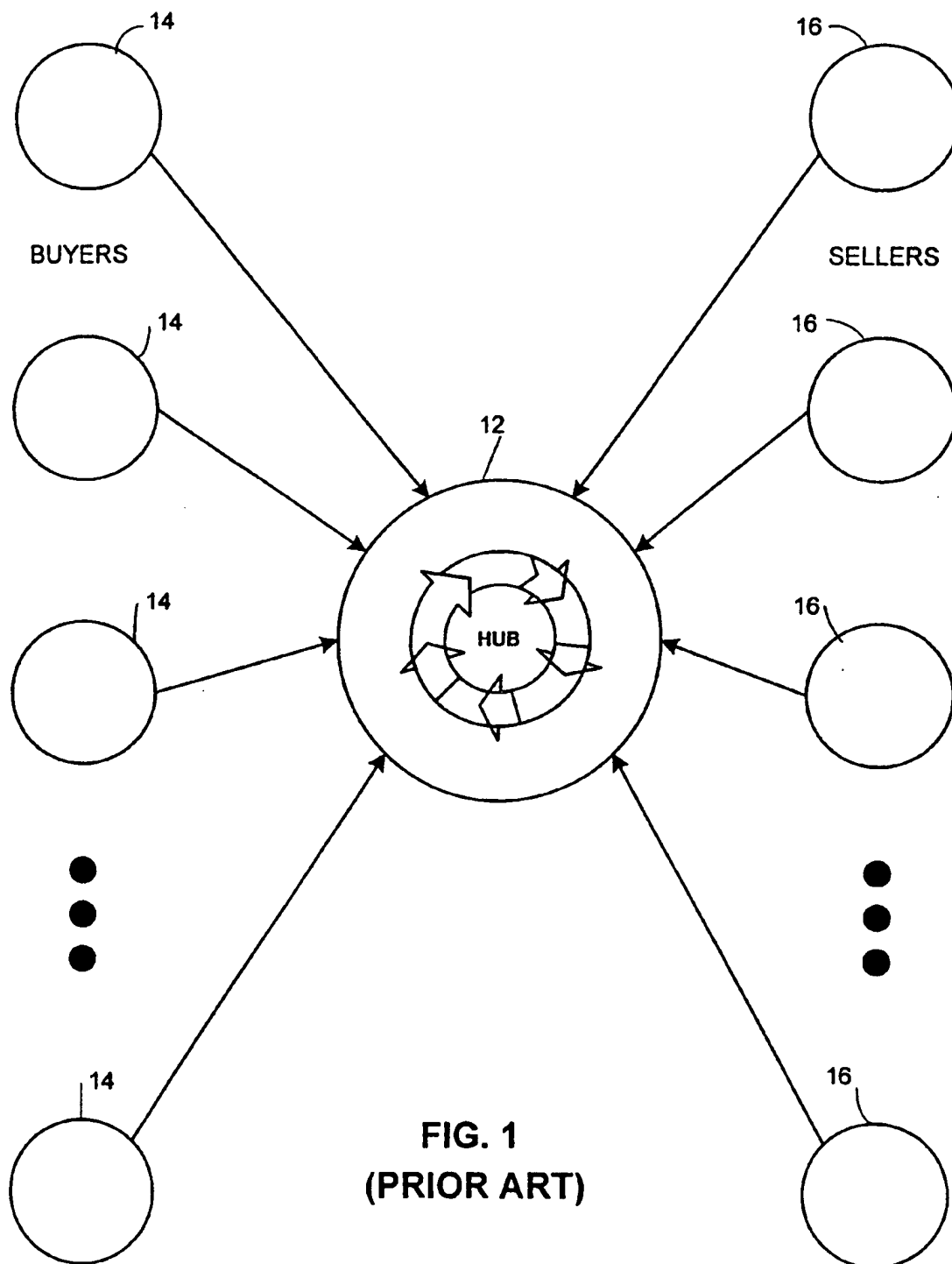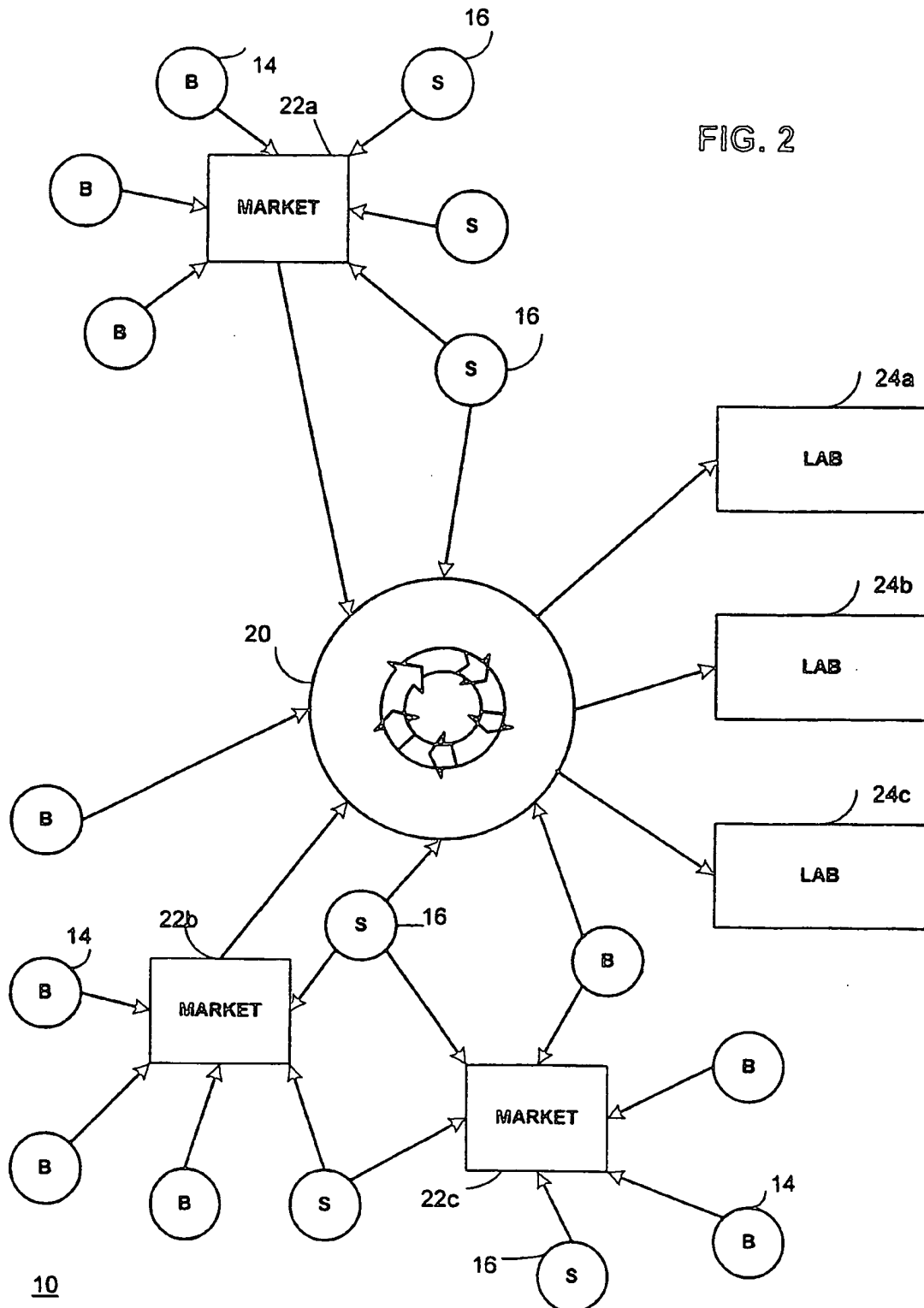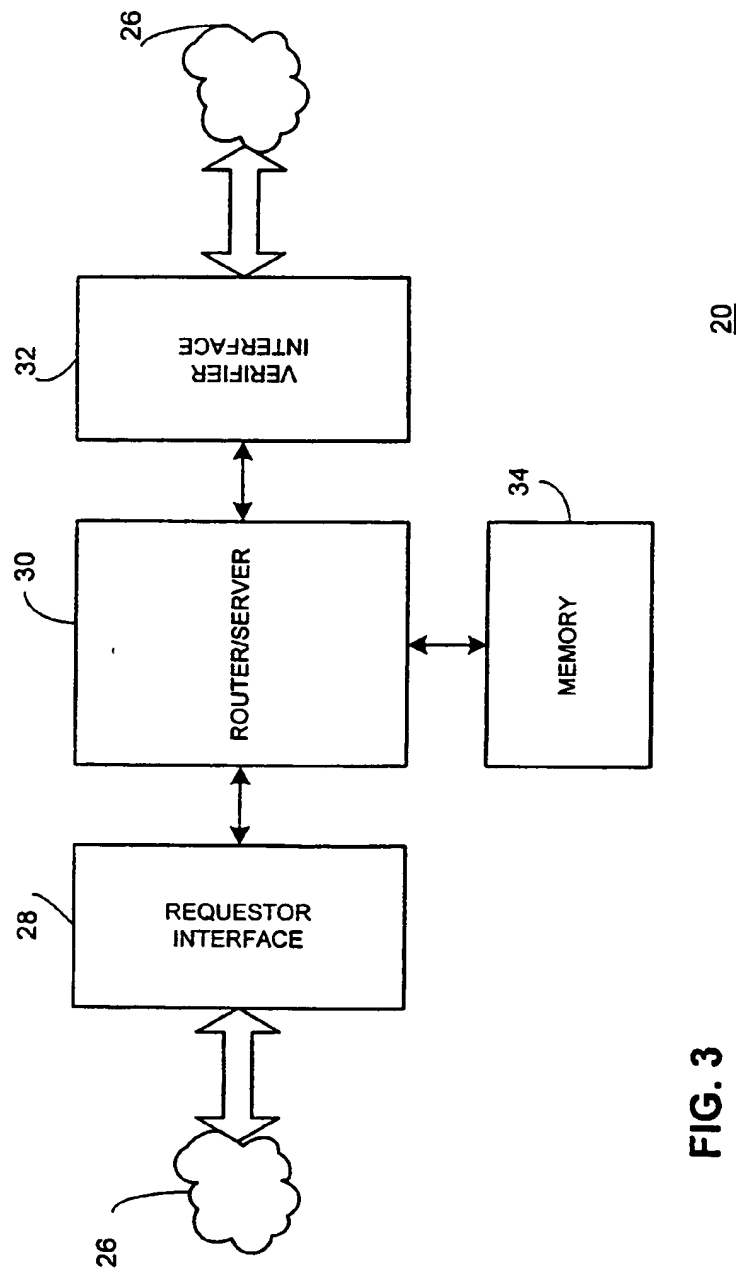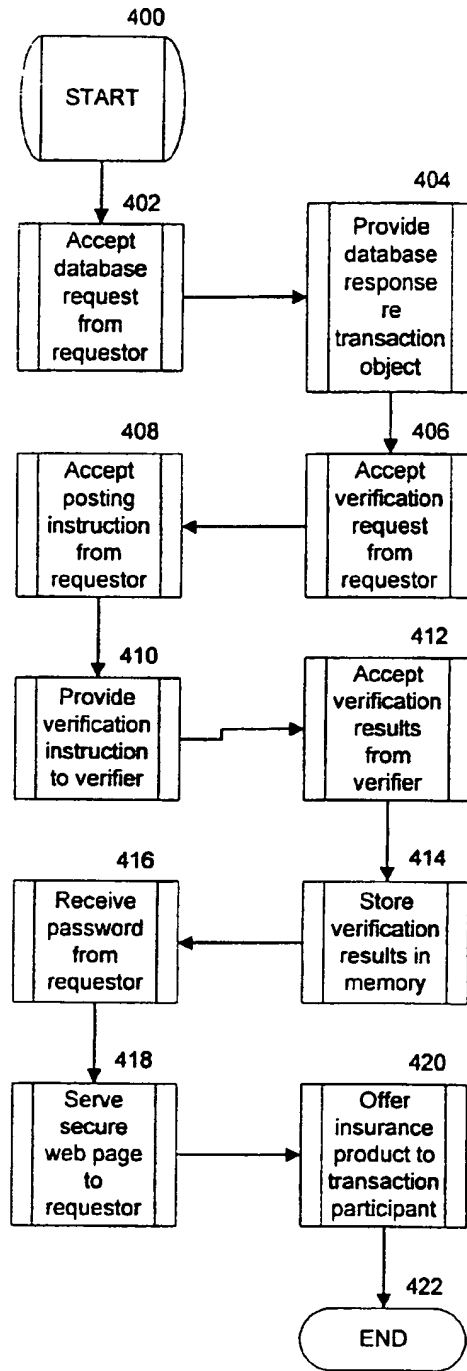
10

FIG. 1
(PRIOR ART)

FIG. 2

FIG. 3

FIG. 4

500

START

502
Accept
surveying
instruction

504
Accept
sampling
instruction

506
Notify
analysis
org. via
email

508
Receive
acknow-
ledgement

510
Send
analysis
request

512
Confirm
receipt and
acceptance

516
Link
analysis
results to
graphical
object

514
Accept
analysis
results

518
Serve web
page with
analysis
results

520
Receive
periodic
data
request

522
Provide
analysis
results
update

524
END

FIG. 5